L Number	Hits	Search Text	DB	Time stamp
1	550582	(detect\$4 or track\$4 or monitor\$4 or check\$4) with (fail\$4 or error\$4 or problem\$ or fault\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/08/07 14:22
2	22633	(repair\$4 or fix\$4 or heal\$4) adj3 (program\$ or list\$ or function\$ or subroutine\$)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/08/07 14:30
3	155	((detect\$4 or track\$4 or monitor\$4 or check\$4) with (fail\$4 or error\$4 or problem\$ or fault\$4)) with ((repair\$4 or fix\$4 or heal\$4) adj3 (program\$ or list\$ or function\$ or subroutine\$))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/08/07 14:22
4	221134	(detect\$4 or track\$4 or monitor\$4 or check\$4) adj5 (fail\$4 or error\$4 or problem\$ or fault\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/08/07 14:23
5	23958	(repair\$4 or fix\$4 or heal\$4) adj3 (fail\$4 or error\$4 or problem\$ or fault\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/08/07 14:44
6	67	((repair\$4 or fix\$4 or heal\$4) adj3 (program\$ or list\$ or function\$ or subroutine\$)) with ((detect\$4 or track\$4 or monitor\$4 or check\$4) adj5 (fail\$4 or error\$4 or problem\$ or fault\$4))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/08/07 14:24
7	8	(((repair\$4 or fix\$4 or heal\$4) adj3 (program\$ or list\$ or function\$ or subroutine\$)) with ((detect\$4 or track\$4 or monitor\$4 or check\$4) adj5 (fail\$4 or error\$4 or problem\$ or fault\$4))) with ((repair\$4 or fix\$4 or heal\$4) adj3 (fail\$4 or error\$4 or problem\$ or fault\$4))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/08/07 14:29
8	556967	remote	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/08/07 14:29
9	8215	(repair\$4 or fix\$4 or heal\$4) adj3 (program\$ or list\$)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/08/07 14:58

10	0	((detect\$4 or track\$4 or monitor\$4 or	USPAT;	2003/08/07
10		check\$4) with (fail\$4 or error\$4 or problem\$	US-PGPUB;	14:36
		or fault\$4)) with ((repair\$4 or fix\$4 or	EPO; JPO;	14.50
		heal\$4) adj3 (fail\$4 or error\$4 or problem\$	DERWENT;	
		or fault\$4)) with remote with ((repair\$4 or	IBM_TDB	
		fix\$4 or heal\$4) adj3 (program\$ or list\$))	15111_155	
11	0	((detect\$4 or track\$4 or monitor\$4 or	USPAT;	2003/08/07
17		check\$4) with (fail\$4 or error\$4 or problem\$	US-PGPUB;	14:36
		or fault\$4)) same ((repair\$4 or fix\$4 or	EPO; JPO;	14.00
		heal\$4) adj3 (fail\$4 or error\$4 or problem\$	DERWENT;	
		or fault\$4)) same remote same ((repair\$4 or	IBM_TDB	
		fix\$4 or heal\$4) adj3 (program\$ or list\$))	.5	
12	2376	((detect\$4 or track\$4 or monitor\$4 or	USPAT;	2003/08/07
		check\$4) with (fail\$4 or error\$4 or problem\$	US-PGPUB;	14:36
		or fault\$4)) with ((repair\$4 or fix\$4 or	EPO; JPO;	14.00
		heal\$4) adj3 (fail\$4 or error\$4 or problem\$	DERWENT;	
		or fault\$4))	IBM_TDB	
14	1	((((detect\$4 or track\$4 or monitor\$4 or	USPAT;	2003/08/07
• •	•	check\$4) with (fail\$4 or error\$4 or problem\$	US-PGPUB:	14:37
		or fault\$4)) with ((repair\$4 or fix\$4 or	EPO; JPO;	14.07
		heal\$4) adj3 (fail\$4 or error\$4 or problem\$	DERWENT;	
		or fault\$4))) same ((repair\$4 or fix\$4 or	IBM_TDB	
		heal\$4) adj3 (program\$ or list\$))) and	15	
		remote		
13	11	(((detect\$4 or track\$4 or monitor\$4 or	USPAT;	2003/08/07
		check\$4) with (fail\$4 or error\$4 or problem\$	US-PGPUB;	14:37
		or fault\$4)) with ((repair\$4 or fix\$4 or	EPO; JPO;	
		heal\$4) adj3 (fail\$4 or error\$4 or problem\$	DERWENT;	
		or fault\$4))) same ((repair\$4 or fix\$4 or	IBM_TDB	
		heal\$4) adj3 (program\$ or list\$))		
15	1	, , , ,	USPAT	2003/08/07
				14:41
16	1		USPAT	2003/08/07
				14:41
17	515	(repair\$4 or fix\$4 or heal\$4) adj3	USPAT;	2003/08/07
		malfunction	US-PGPUB;	14:49
	.		EPO; JPO;	
			DERWENT;	
			IBM_TDB	
18	24412	((repair\$4 or fix\$4 or heal\$4) adj3 (fail\$4 or	USPAT;	2003/08/07
		error\$4 or problem\$ or fault\$4)) or ((repair\$4	US-PGPUB;	14:50
		or fix\$4 or heal\$4) adj3 malfunction)	EPO; JPO;	
			DERWENT;	
			IBM_TDB	
19	2382	(((repair\$4 or fix\$4 or heal\$4) adj3 (fail\$4 or	USPAT;	2003/08/07
		error\$4 or problem\$ or fault\$4)) or ((repair\$4	US-PGPUB;	14:50
		or fix\$4 or heal\$4) adj3 malfunction)) with	EPO; JPO;	
		((detect\$4 or track\$4 or monitor\$4 or	DERWENT;	
		check\$4) with (fail\$4 or error\$4 or problem\$	IBM_TDB	
		or fault\$4))		

20	11	((((repair\$4 or fix\$4 or heal\$4) adj3 (fail\$4 or	USPAT;	2003/08/07
		error\$4 or problem\$ or fault\$4)) or ((repair\$4	US-PGPUB;	14:50
		or fix\$4 or heal\$4) adj3 malfunction)) with	EPO; JPO;	
		((detect\$4 or track\$4 or monitor\$4 or	DERWENT;	
		check\$4) with (fail\$4 or error\$4 or problem\$	IBM_TDB	
		or fault\$4))) same ((repair\$4 or fix\$4 or		
		heal\$4) adj3 (program\$ or list\$))		
21	0	(((((repair\$4 or fix\$4 or heal\$4) adj3 (fail\$4	USPAT;	2003/08/07
		or error\$4 or problem\$ or fault\$4)) or	US-PGPUB;	14:51
		((repair\$4 or fix\$4 or heal\$4) adj3	EPO; JPO;	
		malfunction)) with ((detect\$4 or track\$4 or	DERWENT;	
		monitor\$4 or check\$4) with (fail\$4 or	IBM_TDB	
		error\$4 or problem\$ or fault\$4))) same		
		((repair\$4 or fix\$4 or heal\$4) adj3 (program\$		
		or list\$))) not ((((detect\$4 or track\$4 or		
		monitor\$4 or check\$4) with (fail\$4 or		
		error\$4 or problem\$ or fault\$4)) with		
		((repair\$4 or fix\$4 or heal\$4) adj3 (fail\$4 or		
		error\$4 or problem\$ or fault\$4))) same		
		((repair\$4 or fix\$4 or heal\$4) adj3 (program\$		
		or list\$)))		
22	18	((((repair\$4 or fix\$4 or heal\$4) adj3 (fail\$4 or	USPAT;	2003/08/07
		error\$4 or problem\$ or fault\$4)) or ((repair\$4	US-PGPUB;	14:51
		or fix\$4 or heal\$4) adj3 malfunction)) with	EPO; JPO;	
		((detect\$4 or track\$4 or monitor\$4 or	DERWENT;	
		check\$4) with (fail\$4 or error\$4 or problem\$	IBM_TDB	
		or fault\$4))) and ((repair\$4 or fix\$4 or		
		heal\$4) adj3 (program\$ or list\$)) and remote		
23	17	(((((repair\$4 or fix\$4 or heal\$4) adj3 (fail\$4	USPAT;	2003/08/07
		or error\$4 or problem\$ or fault\$4)) or	US-PGPUB;	14:55
		((repair\$4 or fix\$4 or heal\$4) adj3	EPO; JPO;	
		malfunction)) with ((detect\$4 or track\$4 or	DERWENT;	
		monitor\$4 or check\$4) with (fail\$4 or	IBM_TDB	
		error\$4 or problem\$ or fault\$4))) and		
		((repair\$4 or fix\$4 or heal\$4) adj3 (program\$		
		or list\$)) and remote) not (((((repair\$4 or		
		fix\$4 or heal\$4) adj3 (fail\$4 or error\$4 or		
		problem\$ or fault\$4)) or ((repair\$4 or fix\$4		
		or heal\$4) adj3 malfunction)) with ((detect\$4		
		or track\$4 or monitor\$4 or check\$4) with		
		(fail\$4 or error\$4 or problem\$ or fault\$4)))		
		same ((repair\$4 or fix\$4 or heal\$4) adj3		
		(program\$ or list\$)))		
24	3370	(714/?).ccls.	USPAT;	2003/08/07
			US-PGPUB;	14:55
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	İ
25	5007	(717/1??).ccls.	USPAT;	2003/08/07
			US-PGPUB;	14:55
			EPO; JPO;	
			DERWENT;	
1			IBM_TDB	

26	0	(717/2??).ccls.	USPAT;	2003/08/07
			US-PGPUB;	14:55
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
27	0	(717/3??).ccls.	USPAT;	2003/08/07
			US-PGPUB;	14:56
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
28	0	(717/?).ccls.	USPAT;	2003/08/07
		,	US-PGPUB;	14:57
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
29	8352	((714/?).ccis.) or ((717/1??).ccis.)	USPAT;	2003/08/07
		, ,	US-PGPUB;	14:57
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
30	16062	(repair\$4 or fix\$4 or heal\$4) adj3 (program\$	USPAT;	2003/08/07
		or application\$)	US-PGPUB;	14:59
		,	EPO; JPO;	
		•	DERWENT;	
			IBM_TDB	
31	121	((repair\$4 or fix\$4 or heal\$4) adj3 (program\$	USPAT;	2003/08/07
		or application\$)) with (((repair\$4 or fix\$4 or	US-PGPUB;	15:01
		heal\$4) adj3 (fail\$4 or error\$4 or problem\$	EPO; JPO;	
		or fault\$4)) or ((repair\$4 or fix\$4 or heal\$4)	DERWENT;	
		adj3 malfunction))	IBM_TDB	
32	3	(((repair\$4 or fix\$4 or heal\$4) adj3	USPAT;	2003/08/07
		(program\$ or application\$)) with (((repair\$4	US-PGPUB;	15:03
		or fix\$4 or heal\$4) adj3 (fail\$4 or error\$4 or	EPO; JPO;	
		problem\$ or fault\$4)) or ((repair\$4 or fix\$4	DERWENT;	
		or heal\$4) adj3 malfunction))) same remote	IBM_TDB	
33	34	(((repair\$4 or fix\$4 or heal\$4) adj3	USPAT;	2003/08/07
		(program\$ or application\$)) with (((repair\$4	US-PGPUB;	15:03
		or fix\$4 or heal\$4) adj3 (fail\$4 or error\$4 or	EPO; JPO;	
		problem\$ or fault\$4)) or ((repair\$4 or fix\$4	DERWENT;	
		or heal\$4) adj3 malfunction))) and remote	IBM_TDB	
34	7	((((repair\$4 or fix\$4 or heal\$4) adj3	USPAT;	2003/08/07
		(program\$ or application\$)) with (((repair\$4	US-PGPUB;	15:03
		or fix\$4 or heal\$4) adj3 (fail\$4 or error\$4 or	EPO; JPO;	
		problem\$ or fault\$4)) or ((repair\$4 or fix\$4	DERWENT;	
		or heal\$4) adj3 malfunction))) and remote)	IBM_TDB	
	_ [and (((714/?).ccls.) or ((717/1??).ccls.))		}

5349674

DOCUMENT-IDENTIFIER:

US 5349674 A

TITLE:

Automated enrollment of a computer system into a

service

network of computer systems

----- KWIC -----

Detailed Description Text - DETX (23):

Once the network shown in FIG. 1C is established, Pete's Catering computer

system can automatically <u>detect problems</u> with it's components (hardware,

software, or microcode), build a service request describing the problem, select

a SP/R responsible for **fixing the problem**, (either the Hardware Fixit Shoppe or

the Software Fixit Shoppe) and send the service request to that SP/R. The SP/R

responsible for $\underline{\text{fixing the problem}}$ receives the service request, verifies that

Pete's Catering is entitled to receive service, and checks a solution log to

see if it has the solution for the $\underline{problem}$. If so, solution information

describing the fix for the problem, accompanied by one or more software components, microcode components, hardware parts order, and/or textual instructions, is sent down to the SR. If the responsible SP or SP/R cannot ${\bf fix}$

the problem, it checks to see if it receives support for this problem from any

other SPs or SP/Rs to which it is connected. If so, it sends the service

request on to this SP or SP/R. This process continues until a fix for the

problem is found.

Detailed Description Text - DETX (28):

The computer systems in the service network of the invention also have the $\ensuremath{\mathsf{I}}$

capability to perform or request problem prevention. A SP (or SP/R acting as a $\,$

SP) can check to see if it has any solutions to problems that one or more of

the SRs (or SP/R acting as an SR) it supports has but has not discovered or

reported yet. If so, it can distribute solution information, accompanied by

one or more software components, microcode components, hardware parts order,

and/or textual instructions, to the SRs. In addition, a SR (or SP/R

(j)

acting as an SR) can request any known $\underline{\text{fixes to problems for a list}}$ of supported components from an SP (or SP/R acting as an SP). The SP sends any $\underline{\text{fixes to}}$ $\underline{\text{problems associated with the list}}$ of supported components to the requesting SR.

Detailed Description Text - DETX (47):
Final or <u>fix FRU list</u>, in order of decreasing probability

Detailed Description Text - DETX (114):

FIGS. 8-12 show how problems are detected, determined, and reported either

by a service requestor or for a service requestor remotely by a service provider. These flowcharts are executed by processors 111, and 131 of SR 110,

and SP/R 130, (FIG. 1A) by elements Resource Manager 220, UPPR utility 247, PAR

utility 244, SSF 248, RAS utilities 240, RAS Manager 241, and PDPs 246 (FIGS.

2A and 2B). For purposes of this discussion, SP 150 is considered to have the

elements of SP/R 130 as shown in FIG. 2B if $\underline{\text{remote}}$ problem detection and

determination is to be performed.

Detailed Description Text - DETX (125):

Block 820 determines whether a SP/R wants to perform remote problem detection and determination on an SR that it supports. If so, an operator at

the SP/R console (which is a special one of the terminals 133 or 153 of FIG. 1A

reserved for network operators) is connected remotely with the SR and is

permitted to sign on to the SR computer system. Of course, the operator must

have been given a user id and password to enable access on the SR $\ensuremath{\mathsf{system}}$. Once

connected, however, the operator at the SP can initiate the subroutines shown

in FIGS. 11 and 12 to perform $\underline{\text{remote}}$ problem detection and determination.

Detailed Description Text - DETX (128):

In the preferred embodiment, the session required to perform $\underline{\textbf{remote}}$ problem

detection and determination is an APPC session (LU 6.2) in an APPN network,

although other types of known connections, such as leased, switched or public

data network, could also be used.

Detailed Description Text - DETX (153):

As has been discussed, a SR can perform problem prevention on itself by requesting any known fixes to problems for a list of supported components. As FIG. 8 shows, block 840 asks if fixes are requested for supported programs. If so, subroutine 1400 of FIG. 14 is called. Block 1401 defines the type of problem prevention request desired. Problem prevention can be done at time of enrollment, where the SR desires to receive all fixes for all components it is requesting the SP to support. Problem prevention could also be done periodically for a particular component. For example, Pete's Catering decide that it wants to be continually updated on changes to its Spreadsheet program. Therefore, on the first of every month, a request is generated automatically by Pete's system for problem prevention for the spreadsheet program. Problem prevention could also be done at the request of an operator at an SR for one or more selected components. The information needed determine the type of problem prevention request desired is stored in support

database 203.

4796206

DOCUMENT-IDENTIFIER:

US 4796206 A

TITLE:

Computer assisted vehicle service featuring

signature

analysis and artificial intelligence

----- KWIC -----

Detailed Description Text - DETX (28):

Fault Isolation Repair Procedure Program Executor (FEX) Diagnostic Executive

Detailed Description Text - DETX (29):
Remote Update Facility

Detailed Description Text - DETX (47):

The Fault Isolation Repair Procedure Program Executor (FEX) is the systems

control program that operates the Technician Terminal. The Vehicle Service

Procedures operate under control of FEX to perform the following functions:

Detailed Description Text - DETX (74):

In the Fault Sequencing Procedure 20 (FSP), for each fault code passed by

the FAP, there is a list in the form of tables 21 containing the name(s) of one

or more isolation procedures. These lists are also updated by the host system $% \left(1\right) =\left(1\right) +\left(1$

to reflect the results of statistical analysis of service histories. Each

procedure name in the list represents a component that has required a repair

action when the related fault code was detected. If the list contains

than one name, they are ordered based upon frequency of cause.

6442605

DOCUMENT-IDENTIFIER: US 6442605 B1

TITLE:

Method and apparatus for system maintenance on

an image

in a distributed data processing system

----- KWIC -----

Brief Summary Text - BSTX (14):

With managed PCs in a network computing environment, the client's disk image

is a remote image from a server. Installing applications at these PCs are a

difficult and time consuming task. The difficulty lies partly in the fact that

the user of the PC is typically not well versed in the data processing system

and application dependencies. Further, most users are not well prepared to

administer and support installation problems. The installation and support of

applications usually entails a large degree of expertise and time. As

result, an IS or other network manager is usually in charge of installing and

maintaining applications on PCs in a network computing environment. Performing

application maintenance on PCs in a network requires the network manager to

travel to each PC requiring maintenance. When a patch to fix a problem in a

program is applicable to all PCs in a network, the network manager must

to each PC to install the patch and test the system to see if the patch fixes

the problem. This type of maintenance is time consuming, especially

many cases PCs requiring maintenance may be located on different

different buildings, or even in different cities.

5784549

DOCUMENT-IDENTIFIER:

US 5784549 A

TITLE:

Reduced or fail-safe bootstrapping of a system

having a

graphical user interface

----- KWIC -----

Abstract Text - ABTX (1):

A method and system are disclosed for invoking a limited or "fail-safe"

functionality from a computer system having a graphical user interface (GUI).

In one aspect, a computer operating system having GUI functionality can be

activated with two different sets of GUI features. Normally, the operating

system provides a full complement of GUI features. Alternatively, the operating system provides a more limited set of GUI features. The operating

system invokes the limited set of GUI features either in response to a user

command, such as a keyboard function key pressed during the bootstrap loading

sequence of the operating system, or automatically in response to a failure of

an attempt by the computer system to load the normal complement of GUI functions. With the limited set of GUI features, the user of the computer can

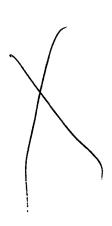
take advantage of the power of graphical user interfaces even when the computer

system is not operating normally. For example, the user can run graphically

based diagnostic and $\underline{\text{repair programs from the "fail}}\text{-safe" mode.}$ The invention

finds application in stand-alone and networked computer systems and, in particular, in systems that store the bulk of the operating system software on

a remote server accessible only by network.



6427227

DOCUMENT-IDENTIFIER:

US 6427227 B1

TITLE:

System, method, and computer-readable medium for

repairing an application program that has been

patched

----- KWIC -----

Detailed Description Text - DETX (4):

FIG. 1 and the following discussion are intended to provide a brief, general

description of a suitable computing environment in which the invention may be

implemented. While the invention will be described in the general context of

an application program that runs on an operating system in conjunction with a

personal computer, those skilled in the art will recognize that the invention

also may be implemented in combination with other program modules. Generally,

program modules include routines, programs, components, data structures, etc.

that perform particular tasks or implement particular abstract data types.

Moreover, those skilled in the art will appreciate that the invention $\ensuremath{\mathsf{may}}$ be

practiced with other computer system configurations, including hand-held

devices, multiprocessor systems, microprocessor-based or programmable consumer

electronics, minicomputers, mainframe computers, and the like. The invention

may also be practiced in distributed computing environments where tasks are

performed by $\underline{\textbf{remote}}$ processing devices that are linked through a communications

network. In a distributed computing environment, program modules may

located in both local and remote memory storage devices.

Detailed Description Text - DETX (7):

The personal computer 20 may operate in a networked environment using

logical connections to one or more \underline{remote} computers, such as a \underline{remote} computer

49. The $\underline{\text{remote}}$ computer 49 may be a server, a router, a peer device or other

common network node, and typically includes many or all of the elements described relative to the personal computer 20, although only a memory storage

74

device 50 has been illustrated in FIG. 1. The logical connections depicted in

 $\overline{\text{FIG}}$. 1 include a local area network (LAN) 51 and a wide area network (WAN) 52.

Such networking environments are commonplace in offices, enterprise-wide

computer networks, intranets and the Internet.

Detailed Description Text - DETX (8):

When used in a LAN networking environment, the personal computer 20 is

connected to the LAN 51 through a network interface 53. When used in a \mathtt{WAN}

networking environment, the personal computer 20 typically includes a modem 54

or other means for establishing communications over the WAN 52, such as the $\,$

Internet. The modem 54, which may be internal or external, is connected to the

system bus 23 via the serial port interface 46. In a networked environment,

program modules depicted relative to the personal computer 20, or portions

thereof, may be stored in the $\underline{\text{remote}}$ memory storage device 50. It will be

appreciated that the network connections shown are exemplary and other means of

establishing a communications link between the computers may be used.

Detailed Description Text - DETX (15):

To begin the example, a user initiates the installation of the product, such

as the Microsoft Word application program. Initiating the installation may

constitute the act of inserting CD-ROM disk 31 in optical disk drive 30, or the

act of executing a $\underline{\text{remote}}$ startup script over a network connection, or any

other means of initiating the installation. Once the installation is initiated, the installer application 201 assumes control of processing.

Detailed Description Text - DETX (25):

On occasion, after a product is installed there arises a need to revise.

through a patch, certain resources of the product, typically to fix a
programming bug or error. FIG. 3 is a functional block diagram
illustrating

how, in accordance with the invention, a patch is applied to an installed

product, such as the Microsoft Word application program installed in the

example illustrated by FIG. 2. FIG. 4 is a logical flow diagram depicting the

steps performed by the installer application 201 to apply the patch. FIG. 4,

taken in conjunction with FIG. 3, illustrate the steps performed by the installer application 201 to apply a patch to an installed product.

Current US Original Classification - CCOR (1): 717/124

Current US Cross Reference Classification - CCXR (1): $\frac{717/174}{}$

6151709

DOCUMENT-IDENTIFIER:

US 6151709 A

TITLE:

Processes and apparatuses for uploading

instructions to

a computer

----- KWIC -----

Brief Summary Text - BSTX (6):

As the complexity and pervasiveness of computer systems and their software

has grown, so too has the need for their technical support.

Troubleshooting of

computer system and software problems generally requires the $\underline{{\tt remote}}$ execution

of computer programs or instructions on a customer's computer to diagnose or

locate the source of the problem. For example, the instructions might be used

to locate and correct the source of corruption in a database. While the use of

computer programs to diagnose system and software problems is common place,

there are many obstacles to efficient implementation of these diagnostic

programs. For example, the diagnostic program must be transferred to the

 $\underline{\underline{remote}}$ computer and sometimes may need to be customized thereat in order to

address the specific problems at the $\underline{\textbf{remote}}$ computer. In addition, operation

of the diagnostic program and interpretation of any output therefrom $\ensuremath{\mathsf{may}}$

require a level of skill in the art greater than at the customer's disposal.

Still further, security concerns and the protection of trade secret information $% \left(1\right) =\left(1\right) +\left(

may necessitate deletion of the diagnostic program after it is no longer needed.

Brief Summary Text - BSTX (7):

Often times, the above-described considerations necessitate a customer

support representative or developer traveling to the $\underline{\textbf{remote}}$ location of the

computer system or software problem to load and execute the diagnostic computer $% \left(\frac{1}{2}\right) =\frac{1}{2}\left(\frac{1}{2$

program. This procedure, however, is often expensive, inefficient and time

consuming. As such, there is a continuing need for apparatuses and

7

processes

for providing efficient and cost effective remote diagnosis and repair
of

computer system and software problems. Still further, there is a continuing

need to provide processes and apparatuses for the intelligent monitoring and

product support of a computer system, wherein a computer application would be

automatically monitored and upgraded as needed.

Brief Summary Text - BSTX (9):

Accordingly, it is an object of the present invention to obviate the above-described shortcomings of $\underline{\textbf{remote}}$ diagnosis of computer systems and software.

Brief Summary Text - BSTX (10):

It is another object of the present invention to provide processes and

apparatuses for uploading instructions to a $\underline{\text{remote}}$ computer for dynamic execution thereat.

Brief Summary Text - BSTX (11):

It is still another object of the present invention to provide processes and

apparatuses for uploading a set of instructions into the working memory of ${\bf a}$

remote computer for dynamic execution by a computer application.

Detailed Description Text - DETX (2):

Reference will now be made in detail to the preferred embodiments of the

present invention, examples of which are illustrated in the accompanying

drawings wherein like numerals indicate the same elements throughout the views,

and wherein numerals having the same last two digits (e.g., 20, 120) connote

corresponding structures between the embodiments. As will be ${\tt understood}$

hereafter, the preferred embodiments of the present invention relate to processes and apparatuses for uploading a set of instructions into the working

memory of a **remote** computer for execution thereat, wherein the set of instructions comprises computer code which replaces or supplements the original

computer code for one or more functions of an existing computer application

disposed at the $\underline{\text{remote}}$ computer. More preferably, execution of the replacement

or supplemental computer code is initiated by the computer application when the

computer application is already in a partially executed state (i.e.,

after the computer application is resident or loaded at the remote computer, such would be the case with a TSR program). Most preferably, the present invention is adapted to upload a set of instructions from a client computer to a server computer to facilitate the diagnosis and/or repair of computer system or software problems at the server computer and the set of instructions is further adapted to send information to the client computer to aid in the diagnosis, repair or updating process.

Detailed Description Text - DETX (13): Referring to FIGS. 2, 4 and 5 and in accordance with another aspect of the present invention, an exemplary process 82 for uploading and executing the set of instructions 48 at the second computer 24 will now be described in the context of diagnosing or fixing a problem with the server application 54 disposed at the second computer 24. A user of the second computer 24, such as a system administrator, upon encountering a problem (such as data corruption, a conflict, or other reportable error) with the server application 54 contacts the user of the first computer 22, who may be, for example, the developer of or a technical support person for the server application 54, to advise this person of the problem. The user of the second computer 24 then re-initiates execution of the server application 54 and, through the use of a switch or other input, triggers execution of the switch routine 72 to ready the server application 54 for the uploading of the set of instructions 48 into the second computer's RAM 28. The switch routine 72 preferably disables any server functions 68 or other

processes (e.g., threads, tasks, etc.) of the server application 54 which could

interfere with execution of the set of instructions 48. The switch routine 72

also preferably spawns or initiates a separate thread or task for monitoring

the communication port of the second computer 24 for a packet 40 from the first

computer 22 for establishing a network connection there between, as shown in

block 84 of FIG. 4.

Current US Original Classification - CCOR (1): $\frac{717/173}{}$